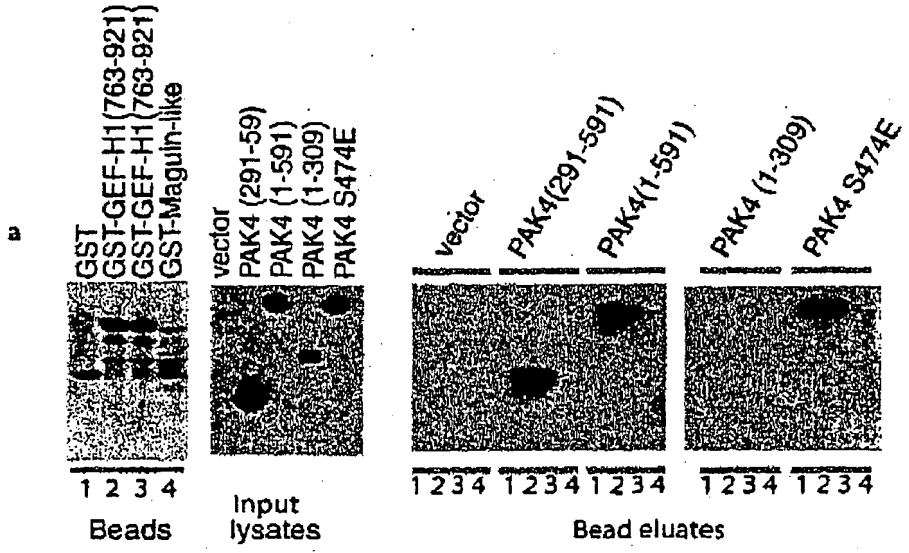
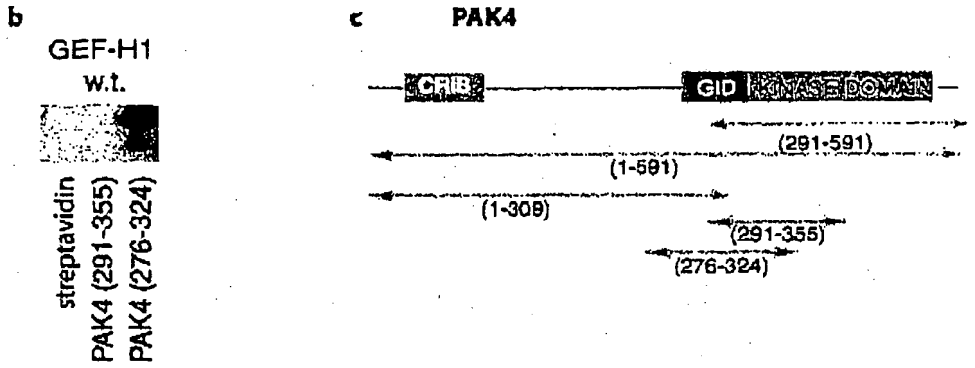
Title: GEF-H1: BIOMARKERS, COMPLEXES, ASSAYS AND THERAPEUTIC USES THEREOF
Inventor(s): Tod R. SMEAL, et al.
Appl. No.: Unassigned





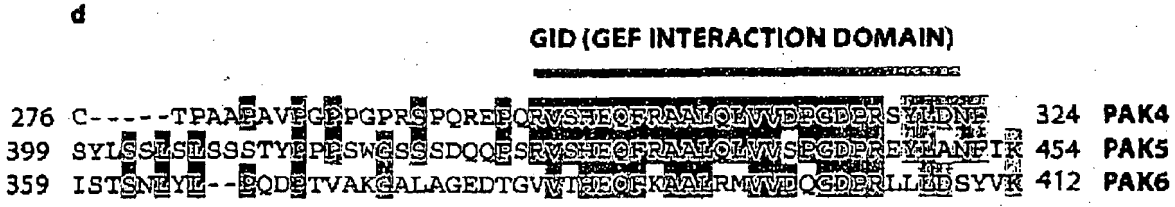


Fig 1. **In vitro association of GEF-H1 with PAK4 alleles and subdomains.**

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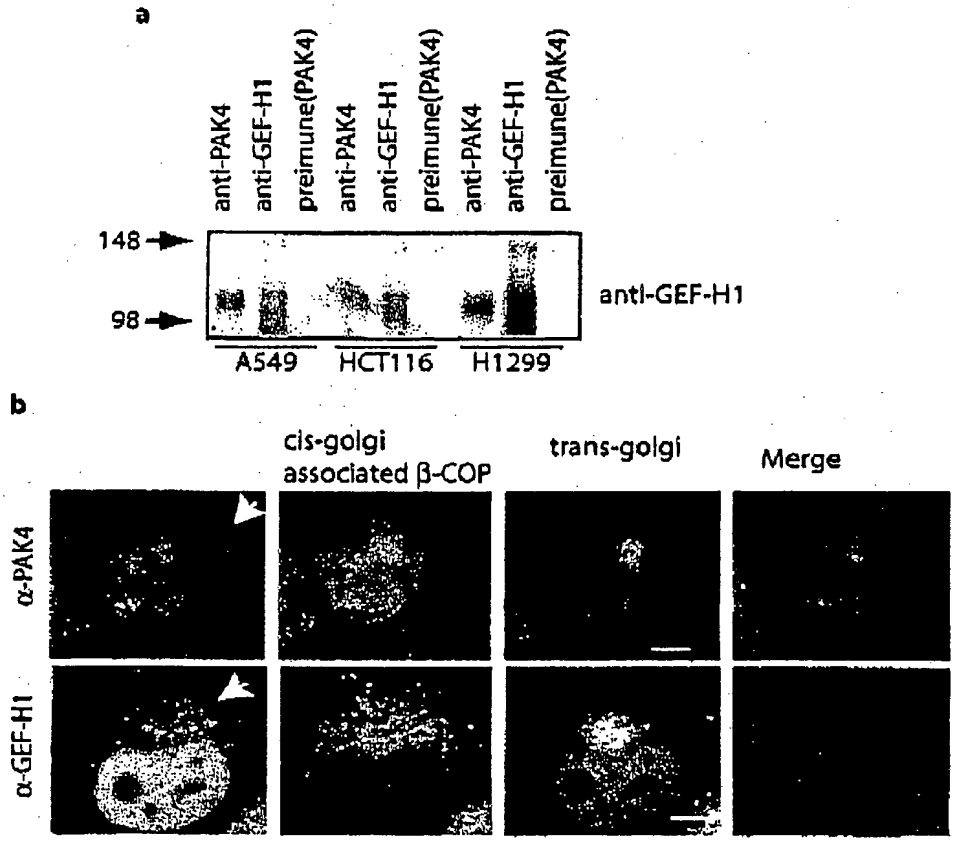

Fig 2. **PAK4 and GEF-H1 co-associate.**

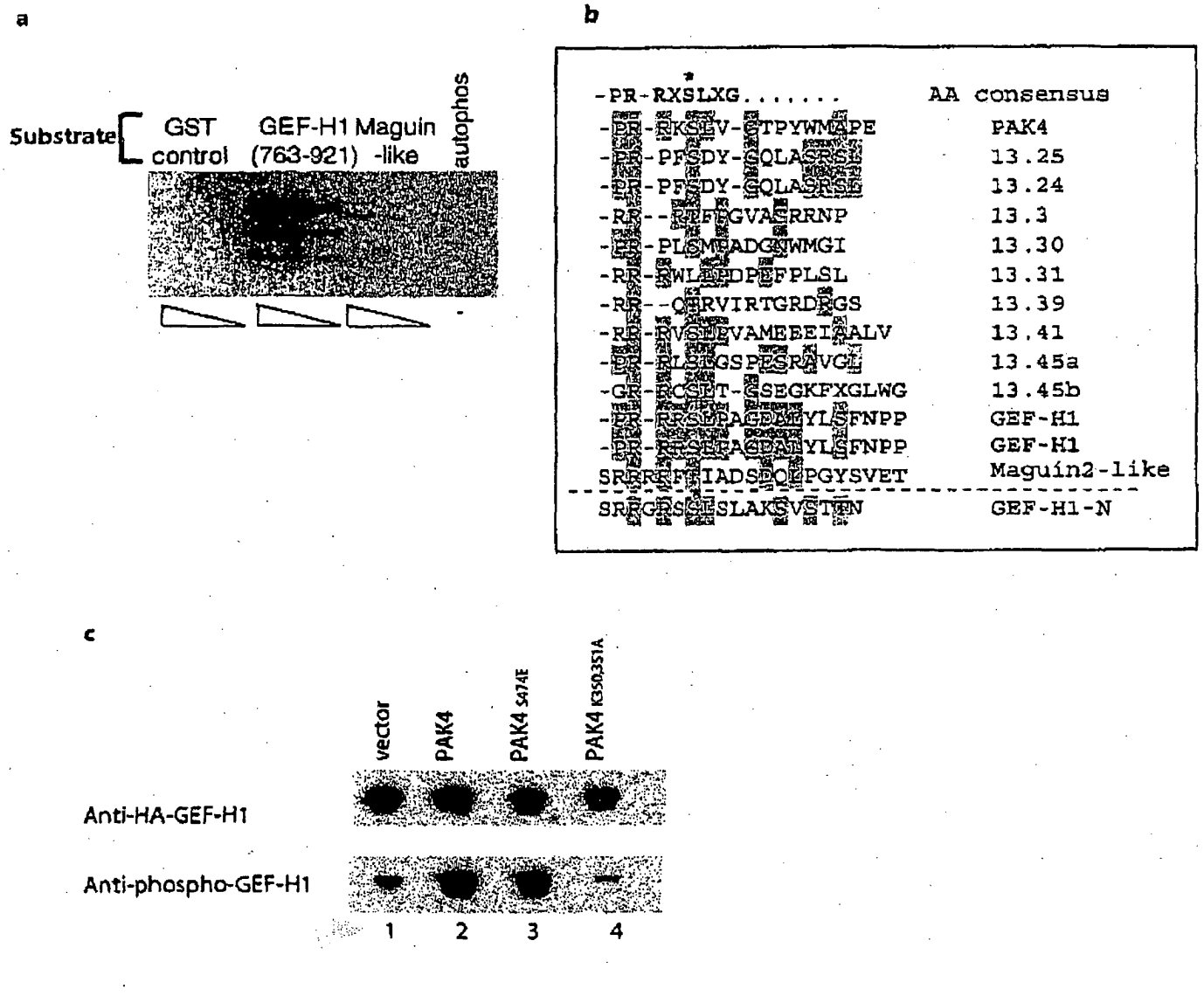

Fig 3. PAK4 phosphorylates GEF-H1 in vitro and in vivo.

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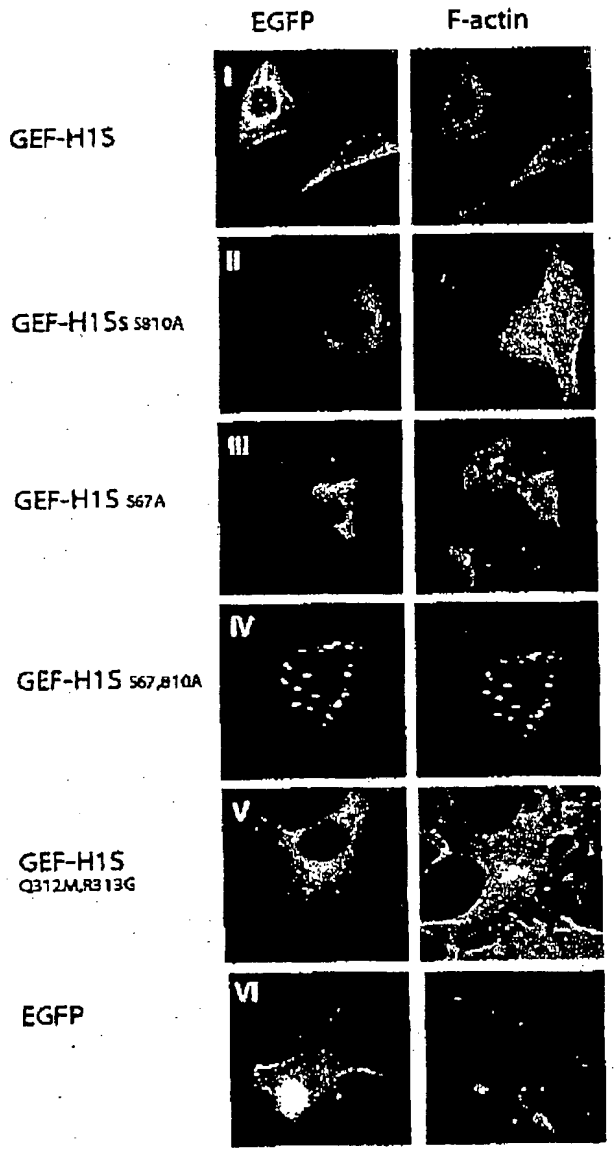

Fig 4. **Morphological effects of GEF-H1 alleles.**

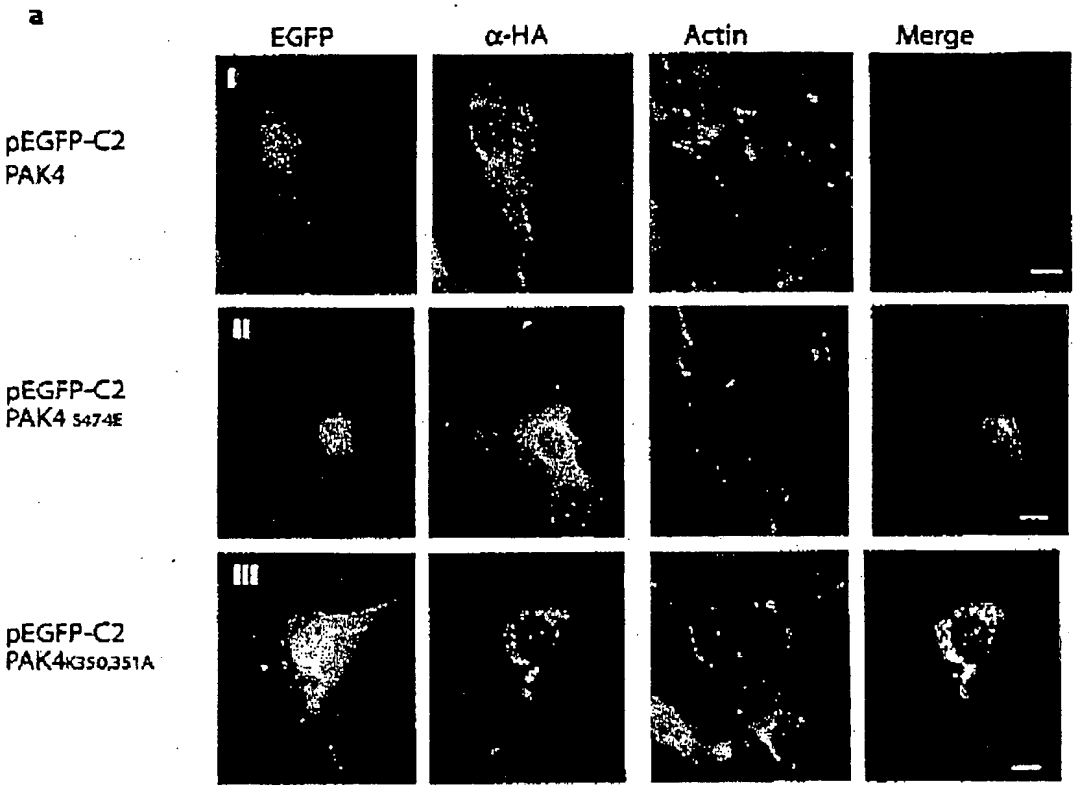

Fig 5a. **PAK4 effects on the actin cytoskeleton**

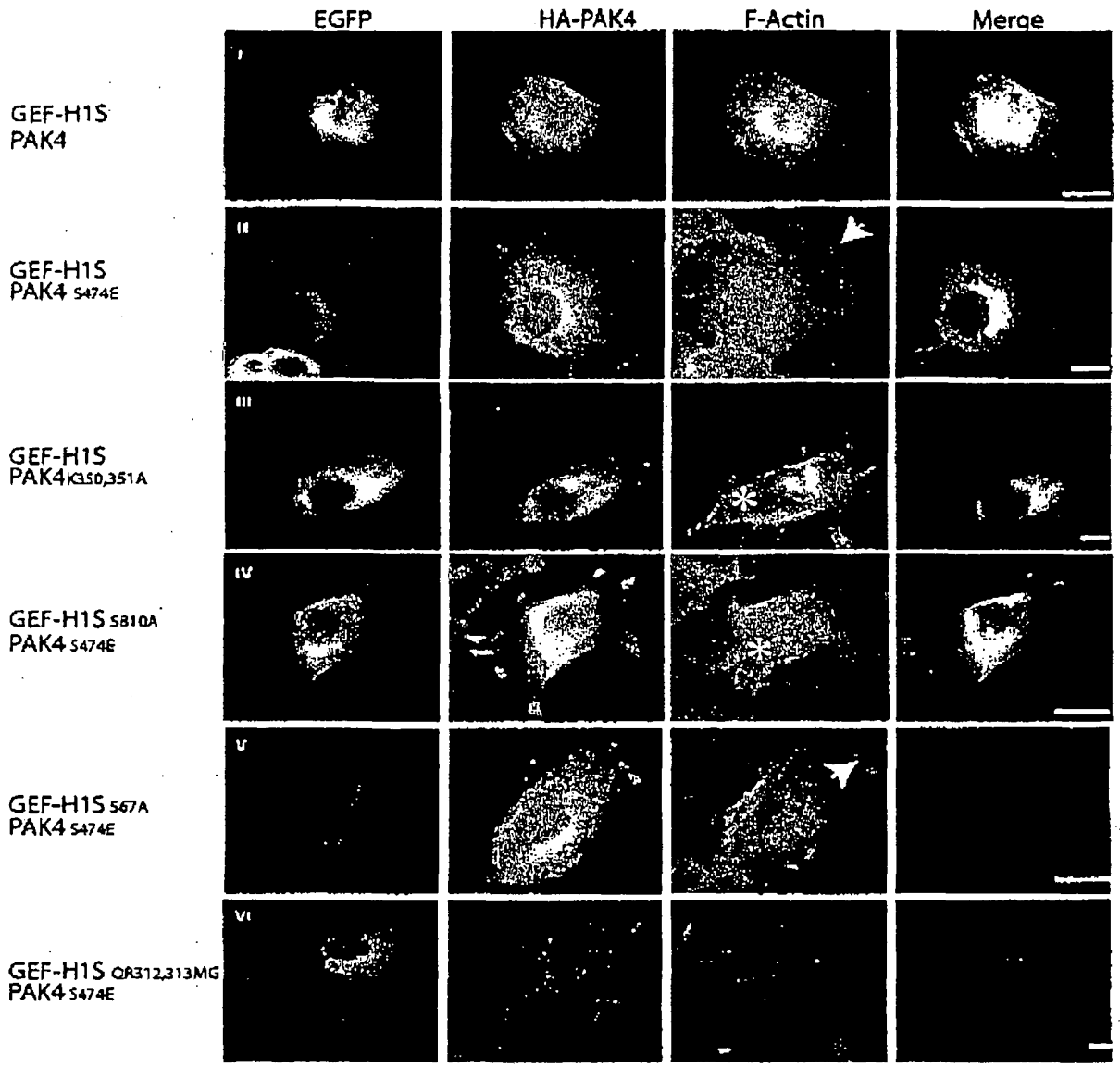

Fig 5b. **PAK4 regulates lammellipodia formation through phosphorylation of S810.**

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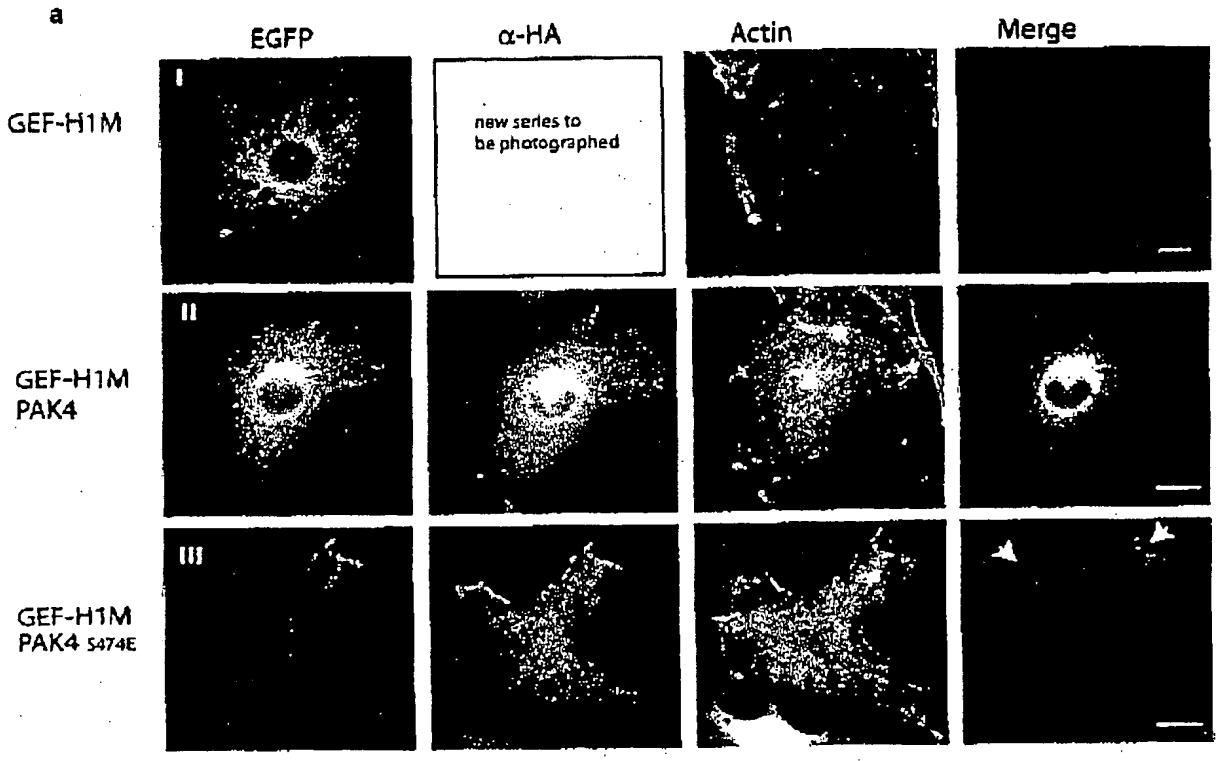

Fig 6a. **PAK4 signalling through GEF-H1M to the actin cytoskeleton.**

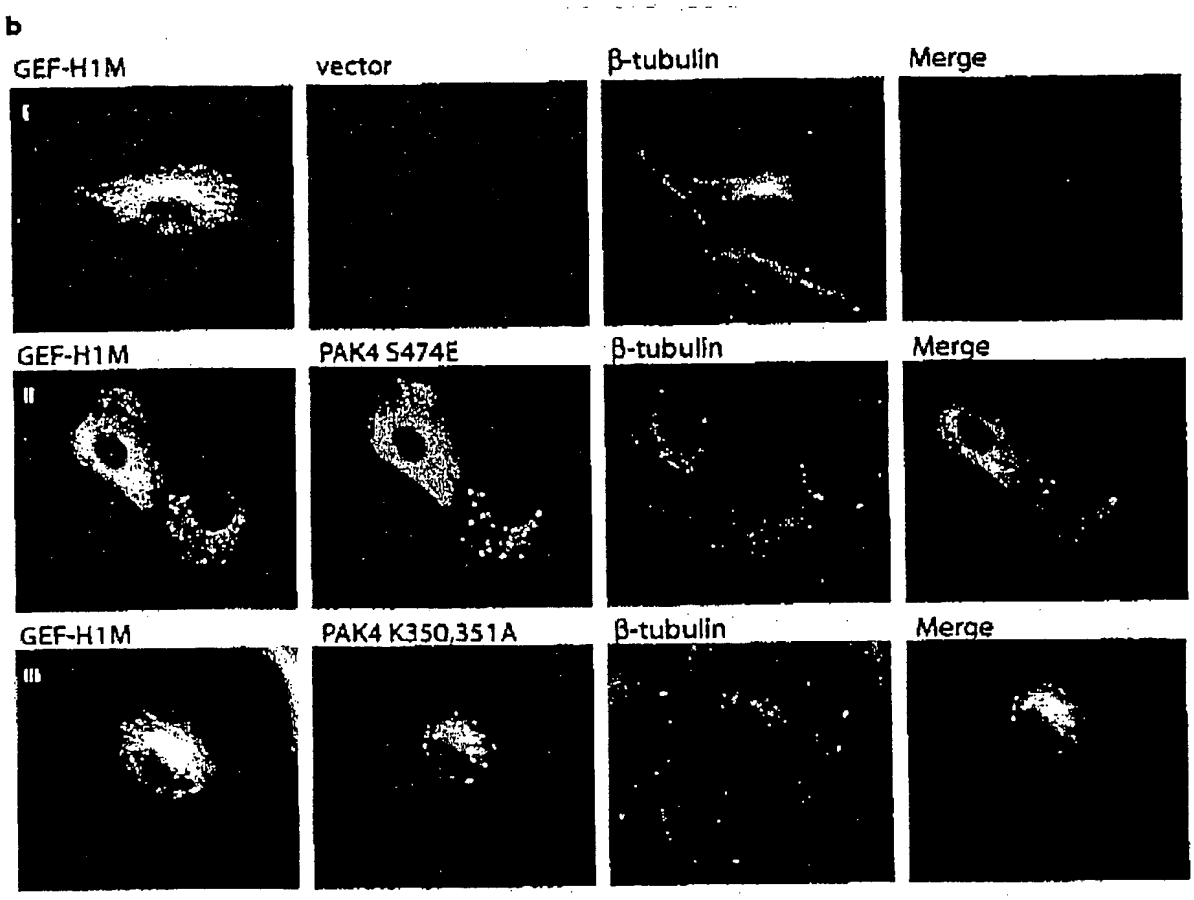

Fig 6b. **PAK4 activity destabilizes GEF-H1M association with MTs.**

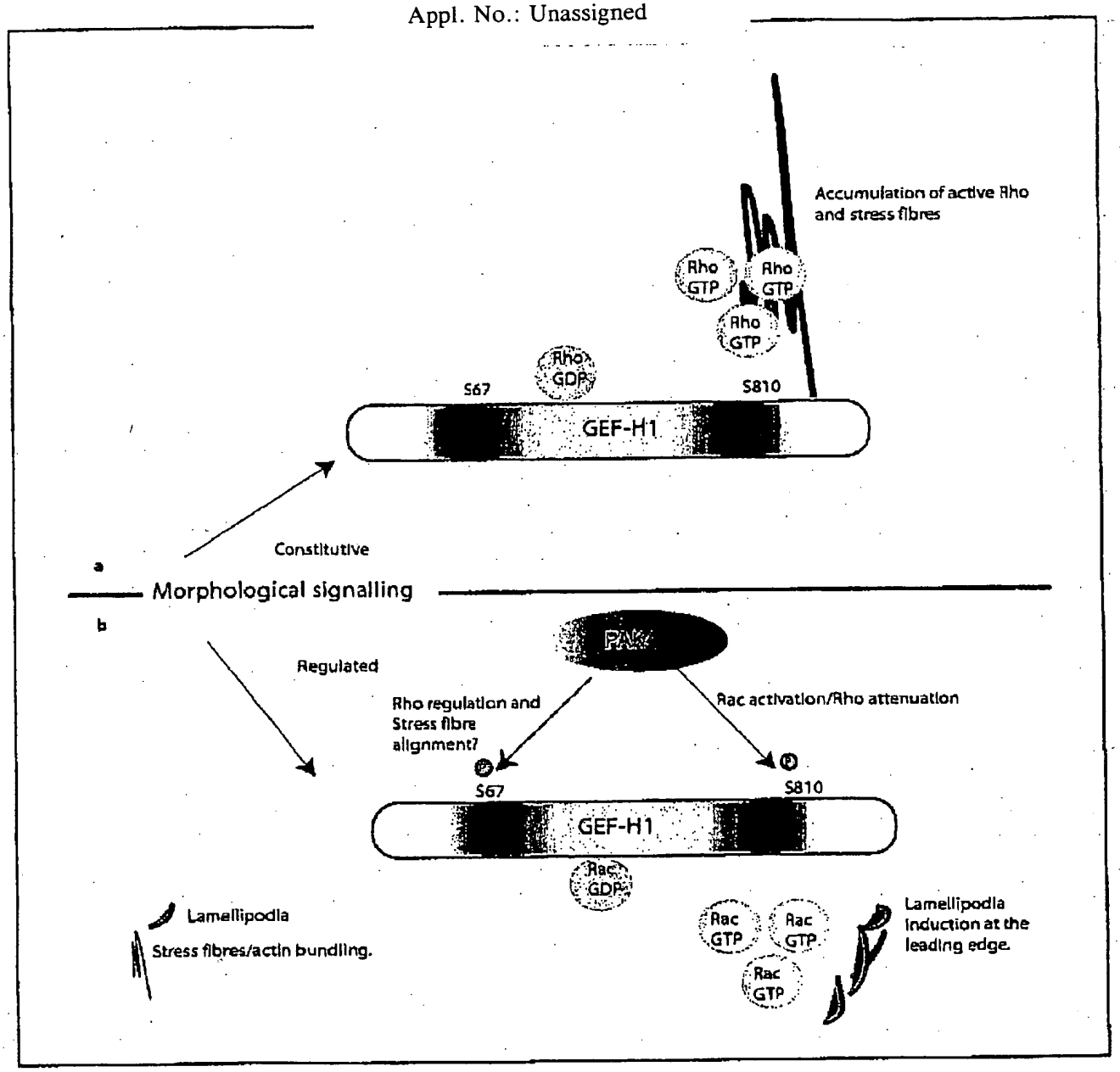

Fig 7. Model for reciprocal regulation of Rac and Rho *in vivo*.

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FIGURE 8

Phosphorylation scores GEF-H1 proteins and peptides.

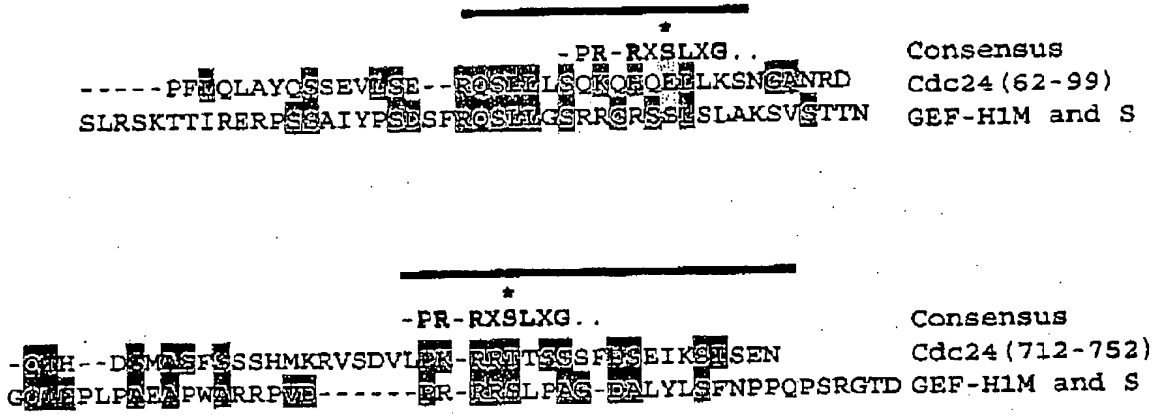
a.

	PEPTIDE		PHOSPHORYLATION
681	RRKSLVGTPYWMAPE	PAK4 act loop	+++++
1008	RRRSLPAGDALYLSFNPP	GEFH1(807-824)	+++++
1009	RRRSLPAGDALYLSFNPP	GEFH1(807-824)	-
1010	RRRSLPAGDALYLSFNPP	GEFH1(807-824)	+++++
1412	RQSLLGSRRGRSSLSLAK	GEFH1(55-72)	-
1413	RQSLLGSRRGRSSLSLAK	GEFH1(55-72)	-
1414	RQSLLGSRRGRSSLSLAK	GEFH1(55-72)	+++++

b

POLYPEPTIDE	PHOSPHORYLATION
1-386	++++
386-921	++
763-921	++++
51-921^{S810A}	++++
386-921^{S810A}	-
807-824	++++
55-72	++

FIGURE 9 **GEF-H1 regulatory regions are conserved with Cdc24**



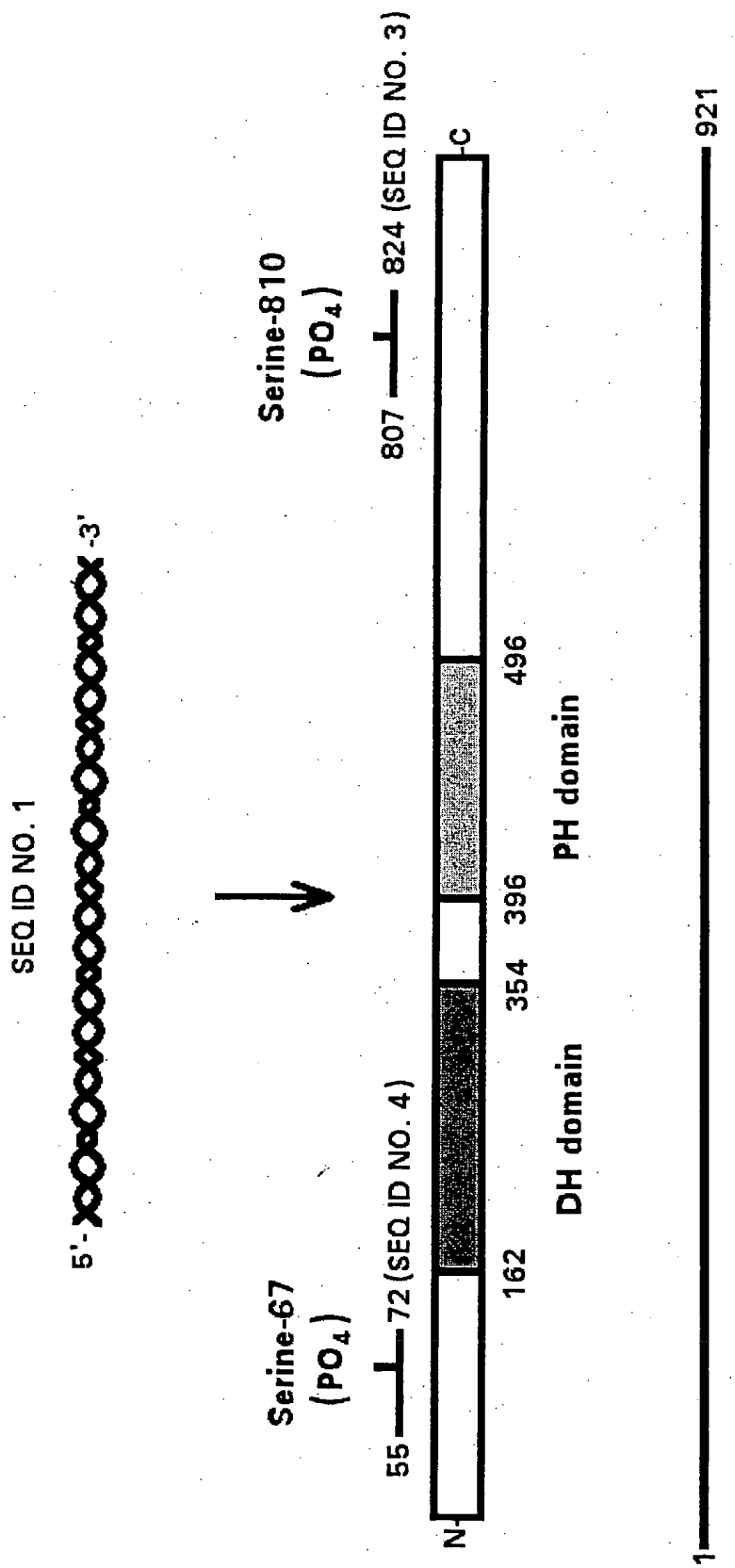

SEQ ID NO. 1
5'-
-3'
Serine-810
(PO4)
807
824 (SEQ ID NO. 3)
-C
921
Serine-67
(PO4)
55
72 (SEQ ID NO. 4)
162
354
396
496
DH domain
PH domain
N-
1
SEQ ID NO. 2

Figure 10